

## Claims:

1. A printer with a media transport comprising:
  - a rigid, air-transmissive platen;
  - a movable air-transmissive flexible web coextensive with the platen;
  - a suction device in communication with the platen to draw air through the web and
  - 10 through the platen such that a sheet of media carried on the web is biased toward the platen; and
  - a valve sheet overlaying the platen, the valve sheet including a plurality of shut-off elements, each movable in response to temperature changes between a closed position in which the element contacts a portion of the platen to prevent air flow through that
  - 15 portion of the platen, and an open position, in which the element is spaced apart from the platen to admit air to the platen portion.
2. The printer of claim 1 wherein each valve element includes a bimetallic strip.
3. The printer of claim 1 wherein each platen portion defines an aperture communicating with the suction device.
- 20 4. The printer of claim 1 including an electrical connection to each of the shut-off elements, such that electrical power may be applied to heat an element to generate the temperature change needed for moving the element to the open position.
5. The printer of claim 1 wherein the web overlays the valve sheet.
6. The printer of claim 1 wherein each valve element is provided by an aperture in the
- 25 sheet, with an arm protruding into the aperture.
7. The printer of claim 6 wherein each arm is elevated above a plane defined by the sheet when in an open position, and is flush with the plane when in the closed position.
8. The printer of claim 6 wherein the arms extend in a common direction.

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5 9. The printer of claim 8 wherein the web operates to move a media sheet in the common direction.

10. The printer of claim 1 including a controller connected to the valve sheet and operable to determine the position of a sheet of media on the web, and to set at least some of the valve elements overlaid by the sheet to the open position, and to set at least some of the valve elements away from the sheet to a closed position.

11. A vacuum hold-down device comprising:

a flat platen having an upper surface and a lower surface;

the platen defining an array of apertures each extending through the platen from the upper surface to the lower surface;

15 a suction device in communication with the platen to draw air through the apertures; and

a valve sheet coextensive with the platen, the valve sheet including a plurality of movable shut-off elements each having a movable element registered with a respective aperture and movable between a closed position in which the element contacts a portion of the platen to prevent air flow through that portion of the platen, and an open position, in which the element is spaced apart from the platen to admit air to the platen portion.

12. The hold down device of claim 11 wherein each of the valve elements includes a thermally sensitive element that responds to a change in temperature to determine its position.

25 13. The hold down device of claim 11 wherein each valve element includes a bimetallic strip.

14. The hold down device of claim 11 wherein each valve element includes a resistive heater.

5 15. The hold down device of claim 11 including an electrical connection to each of the shut-off elements, such that electrical power may be applied to heat an element to generate the temperature change needed for moving the element to the open position.

16. The hold down device of claim 11 including a movable air-transmissive web operable to carry a sheet of media over the platen.

10 17. The hold down device of claim 11 wherein each valve element is provided by an aperture in the sheet, with an arm protruding into the aperture.

18. The hold down device of claim 11 including a controller connected to the valve sheet and operable to determine the position of a sheet of media on the web, and to set at least some of the valve elements overlaid by the media sheet to the open position, and to set at least some of the valve elements away from the media sheet to a closed position.

15 19. A method of operating a printer having a vacuum platen defining an array of apertures communicating with a vacuum device, and having a valve sheet coextensive with the platen and including a corresponding array of thermally response valve elements, comprising:

20 providing a media sheet;  
passing the media sheet over the platen;  
while passing the media sheet, setting at least some of the valve elements overlaid by the media sheet to obscure the corresponding aperture, and setting at least some of the valve elements away from the media sheet to maintain open the corresponding  
25 aperture.

20. The method of claim 19 including opening valve elements as the leading edge of the media sheet approaches, and closing valve elements as the trailing edge of the media sheet passes.

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